

CLAIMS :

1. A polypeptide selected from the group consisting of the polypeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4, the polypeptide as set forth in SEQ ID NO: 5, and the polypeptide as set forth in SEQ ID NO: 6.
2. A polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, said polypeptide analog being capable of inhibiting the growth of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial,

ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH).

3. A polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, said polypeptide analog being capable of inhibiting the growth of a tumor.
4. The use of a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID

NO: 6 (polypeptide 76-94) and mixture(s) thereof, for inhibiting growth of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH).

5. The use of a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixture(s) thereof, for inhibiting the growth of a tumor.
6. The use of rHuPSP94 as set forth in SEQ ID NO: 2 according to claim 4 wherein rHuPSP94 is used in a dosage range from about 10 micrograms/kg/day to about 4 milligrams/kg/day.
7. The use of rHuPSP94 as set forth in SEQ ID NO: 2 according to claim 4 wherein rHuPSP94 is used in a dosage range from about 500 picograms/kg/day to about 1 milligram/kg/day.
8. The use of rHuPSP94 as set forth in SEQ ID NO: 2 according to claim 4 wherein rHuPSP94 is used in a dosage range from about 5 nanograms/kg/day to about 10 micrograms/kg/day.
9. The use of rHuPSP94 as set forth in SEQ ID NO: 2 according to claim 4 wherein rHuPSP94 is used in a dosage range from about 5 nanograms/kg/day to about 500 nanograms/kg/day.
10. The use of a polypeptide according to claim 4 wherein said polypeptide is selected from the group consisting of the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4, the polypeptide as set forth in SEQ ID NO: 5, the polypeptide as set forth in SEQ ID NO: 6, and mixtures thereof wherein said polypeptide is used in a dosage range from about 100 nanograms/kg/day to about 4 milligrams/kg/day.
11. The use of a polypeptide according to claim 4 wherein said polypeptide is used with an anticancer drug
12. The use of a polypeptide according to claim 11 wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil,

methotrexate, adriamycin, daunomycin, taxol, taxol derivative,  
and mixtures thereof.

5 13. The use of a polypeptide as in claim 4 wherein  
said polypeptide is used with a pharmaceutically acceptable  
carrier.

10 14. The use of a polypeptide according to claim 11 wherein said  
polypeptide is used with a pharmaceutically acceptable carrier.

15 15. The use of a polypeptide as in claim 4 wherein  
said polypeptide is used with a time-release means selected  
from the group consisting of liposomes and polysaccharides for  
effecting continual dosing of said polypeptide.

20 16. The use of a polypeptide according to claim 11 wherein said  
polypeptide is used with a time-release means selected from the  
group consisting of liposomes and polysaccharides for effecting  
continual dosing of said polypeptide.

25 17. The use of a polypeptide according to claim 13 wherein said  
polypeptide is used with a time-release means selected from the  
group consisting of liposomes and polysaccharides for effecting  
continual dosing of said polypeptide.

30 18. The use of a polypeptide according to claim 14 wherein said  
polypeptide is used with a time-release means selected from the  
group consisting of liposomes and polysaccharides for effecting  
continual dosing of said polypeptide.

35 19. The use of a polypeptide analog selected from the group  
consisting of a polypeptide analog of at least five contiguous  
amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4,  
of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at  
least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO:  
3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a  
polypeptide analog consisting of the amino acid sequence  $X_1 W Q$   
 $X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89,  
wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or  
40 aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine  
(Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe),  
a polypeptide analog comprising SEQ ID NO: 5 and having an  
addition of at least one amino acid to its amino-terminus,  
wherein said polypeptide analog comprising SEQ ID NO: 5 is

selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is

5 selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid

10 units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid

15 sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid

20 sequence set forth in SEQ ID NO: 5 for inhibiting growth of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH).

25 20. The use of a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a

30 polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine

35 (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID

40 NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of

SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 for inhibiting the growth of a tumor.

21. The use of a polypeptide analog according to claim 19 wherein said polypeptide analog is used with an anticancer drug.

22. The use of a polypeptide analog according to claim 21, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

23. The use of a polypeptide analog according to claim 19 wherein said polypeptide analog is used with a pharmaceutically acceptable carrier.

24. The use of a polypeptide analog according to claim 21 wherein said polypeptide analog is used with a pharmaceutically acceptable carrier.

25. The use of a polypeptide analog according to claim 19 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

26. The use of a polypeptide analog according to claim 21 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and

polysaccharides for effecting continual dosing of said polypeptide analog.

27. The use of a polypeptide analog according to claim 23 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

28. The use of a polypeptide analog according to claim 24 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

29. A method for treating a patient with prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), the method comprising administering to the patient a pharmaceutical composition comprising a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixtures thereof.

30. A method for treating a patient with a tumor, the method comprising administering to the patient a pharmaceutical composition comprising a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixtures thereof.

31. The method according to claim 29 wherein rHuPSP94 (SEQ ID NO: 2) is administered in a dosage range from about 10 micrograms/kg/day to about 4 milligrams/kg/day.

32. The method according to claim 29 wherein rHuPSP94 (SEQ ID NO: 2) is administered in a dosage range from about 25 picograms/kg/day to about 1 milligram/kg/day.

33.The method according to claim 29 wherein human rHuPSP94 (SEQ ID NO: 2) is administered in a dosage range from about 5 nanograms/kg/day to about 10 micrograms/kg/day.

34.The method according to claim 29 wherein said polypeptide is selected from the group consisting of the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4, the polypeptide as set forth in SEQ ID NO: 5, the polypeptide as set forth in SEQ ID NO: 6, and mixtures thereof, wherein said polypeptide is used in a dosage range from about 100 nanograms/kg/day to about 4 milligrams/kg/day.

35.The method according to claim 29 wherein said polypeptide is used with an anticancer drug.

36.The method of claim 35 wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

37.The method according to claim 29 wherein said polypeptide is used with a pharmaceutically acceptable carrier.

38.The method according to claim 35 wherein said polypeptide is used with a pharmaceutically acceptable carrier.

39.The method according to claim 29 wherein said polypeptide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

40.The method according to claim 35 wherein said polypeptide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

41.The method according to claim 37 wherein said polypeptide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

42.The method according to claim 38 wherein said polypeptide is used with a time-release means selected from the group

consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

5 43. A method for treating a patient with prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), the method comprising administering to the patient a pharmaceutical composition including a vector comprising the nucleotide sequence of SEQ ID NO: 9 and a pharmaceutically acceptable carrier.

10 44. A method for treating a patient with a tumor, the method comprising administering to the patient a pharmaceutical composition including a vector comprising the nucleotide sequence of SEQ ID NO: 9 and a pharmaceutically acceptable carrier.

15 45. The method according to claim 43 wherein said vector is used with an anticancer drug.

20 46. The method according to claim 45, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

25 47. The method according to claim 43 wherein said vector is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said vector.

30 48. The method according to claim 45 wherein said vector is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said vector.

35 49. A method for treating a patient with prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), the method comprising administering to the patient a pharmaceutical composition comprising a polynucleotide selected from the group consisting of a polynucleotide having at least 10 to 285 contiguous residues of SEQ ID NO: 9, and a polynucleotide having at least 10 to 50 contiguous residues of SEQ ID NO: 9, and a pharmaceutically acceptable carrier.

50. A method for treating a patient with a tumor, the method comprising administering to the patient a pharmaceutical composition comprising a polynucleotide selected from the group consisting of a polynucleotide having at least 10 to 285 contiguous residues of SEQ ID NO: 9, and a polynucleotide having at least 10 to 50 contiguous residues of SEQ ID NO: 9, and a pharmaceutically acceptable carrier.

51. The method according to claim 49 wherein said polynucleotide is used with an anticancer drug.

52. The method according to claim 51, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

53. The method according to claim 49 wherein said polynucleotide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polynucleotide.

54. The method according to claim 51 wherein said polynucleotide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polynucleotide.

55. A method for treating a patient with prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), the method comprising administering to the patient a pharmaceutical composition comprising a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid

to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, said polypeptide analog being capable of inhibiting the growth of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH).

56.A method for treating a patient with a tumor, the method comprising administering to the patient a pharmaceutical composition comprising a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having

an addition of at least one amino acid to its carboxy-terminus,  
wherein said polypeptide analog comprising SEQ ID NO:5 is  
selected from the group consisting of SEQ ID NO: 10 to SEQ ID  
NO: 58, a polypeptide analog comprising two to fifty units of  
SEQ ID NO: 5, a polypeptide analog comprising two to ten units  
of SEQ ID NO: 5, a polypeptide analog consisting of a sequence  
of from two to fourteen amino acid units wherein the amino acid  
units are selected from the group of amino acid units of SEQ ID  
NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp),  
glutamine (Gln), threonine (Thr), aspartic acid (Asp),  
asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a  
polypeptide analog having at least 90 % of its amino acid  
sequence identical to the amino acid sequence set forth in SEQ  
ID NO: 5, a polypeptide analog having at least 70 % of its  
amino acid sequence identical to the amino acid sequence set  
forth in SEQ ID NO: 5, and a polypeptide analog having at least  
50 % of its amino acid sequence identical to the amino acid  
sequence set forth in SEQ ID NO: 5, said polypeptide analog  
being capable of inhibiting the growth a tumor.

57.The method according to claim 55 wherein said polypeptide  
analog is used with an anticancer drug.

58.The method according to claim 57, wherein said anticancer drug  
is selected from the group consisting of mitomycin, idarubicin,  
cisplatin, 5-fluoro-uracil, methotrexate, adriamycin,  
daunomycin, taxol, taxol derivative, and mixtures thereof.

59.The method according to claim 55 wherein said  
polypeptide analog is used with a pharmaceutically acceptable  
carrier.

60.The method according to claim 57, wherein said polypeptide  
analog is used with a pharmaceutically acceptable carrier.

61.The method according to claim 55 wherein said  
polypeptide analog is used with a time-release means selected  
from the group consisting of liposomes and polysaccharides for  
effecting continual dosing of said polypeptide analog.

62.The method according to claim 57 wherein said polypeptide  
analog is used with a time-release means selected from the  
group consisting of liposomes and polysaccharides for effecting  
continual dosing of said polypeptide analog.

63. The method according to claim 59 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

64. The method according to claim 60 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

65. A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising:

a) a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (Polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as set forth in SEQ ID NO: 6 (Polypeptide 76-94) and mixture(s) thereof, and;

b) an anticancer drug.

66. A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising:

a) a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (Polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as set forth in SEQ ID NO: 6 (Polypeptide 76-94) and mixture(s) thereof, and;

b) a pharmaceutically acceptable carrier.

67. A pharmaceutical composition comprising:

a) A polypeptide selected from the group consisting of  
rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as  
set forth in SEQ ID NO: 3, the polypeptide as set forth  
in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as  
set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as  
set forth in SEQ ID NO: 6 (polypeptide 76-94) and  
mixture(s) thereof in a therapeutically effective amount,  
and;

b) an anticancer drug in a therapeutically effective amount.

68.A pharmaceutical composition comprising:

a) a polypeptide selected from the group consisting of  
rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as  
set forth in SEQ ID NO: 3, the polypeptide as set forth  
in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as  
set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as  
set forth in SEQ ID NO: 6 (polypeptide 76-94) and  
mixture(s) thereof in a therapeutically effective amount,  
and;

b) a pharmaceutically acceptable carrier.

69.A pharmaceutical composition as in claim 65 wherein  
rHuPSP94 (SEQ ID NO: 2) is used in a dosage range from about 10  
micrograms/kg/day to about 4 milligrams/kg/day.

70.A pharmaceutical composition as in claim 65 wherein  
rHuPSP94 (SEQ ID NO: 2) is used in a dosage range from about  
500 picograms/kg/day to about 1 milligram/kg/day.

71.A pharmaceutical composition as in claim 65 wherein  
rHuPSP94 is used in a dosage range from about 5  
nanograms/kg/day to about 10 micrograms/kg/day.

72.A pharmaceutical composition as in claim 65 wherein  
rHuPSP94 is used in a dosage range from about 5  
nanograms/kg/day to about 500 nanograms/kg/day.

73.A pharmaceutical composition as in claim 65 wherein  
said polypeptide is selected from the group consisting of the  
decapeptide as set forth in SEQ ID NO: 3, the polypeptide as

set forth in SEQ ID NO: 4, the polypeptide as set forth in SEQ ID NO: 5, the polypeptide as set forth in SEQ ID NO: 6 and mixture(s) thereof, wherein said polypeptide is used in a dosage range from about 100 nanograms/kg/day to about 4 milligrams/kg/day.

74.A pharmaceutical composition according to claim 66 further comprising an anticancer drug.

75.A pharmaceutical composition according to claim 65, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluorouracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

76.A pharmaceutical composition as in claim 65, further comprising a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of the composition.

77.A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising a vector comprising the nucleotide sequence of SEQ ID NO: 9 and a pharmaceutically acceptable carrier.

78.A pharmaceutical composition for inhibiting the growth of a tumor in a patient, comprising a vector comprising the nucleotide sequence of SEQ ID NO: 9 and a pharmaceutically acceptable carrier.

79.A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising a polynucleotide selected from the group consisting of a polynucleotide having at least 10 to 285 contiguous residues of SEQ ID NO: 9 and a polynucleotide having at least 10 to 50 contiguous residues of SEQ ID NO: 9, and a pharmaceutically acceptable carrier.

80.A pharmaceutical composition for inhibiting the growth of a tumor in a patient, comprising a polynucleotide selected from

the group consisting of a polynucleotide having at least 10 to 285 contiguous residues of SEQ ID NO: 9 and a polynucleotide having at least 10 to 50 contiguous residues of SEQ ID NO: 9, and a pharmaceutically acceptable carrier.

81.A pharmaceutical composition as in claim 77 further comprising an anticancer drug.

82.A pharmaceutical composition according to claim 81 wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

83.A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising:

- a) a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of

a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and mixture(s) thereof, and;

b) an anticancer drug.

84.A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising:

a) a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a

polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and mixture(s) thereof, and;

a) a pharmaceutically acceptable carrier.

85.A pharmaceutical composition comprising:

a) a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten

units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 and mixture(s) thereof in a therapeutically effective amount, and;

b) an anticancer drug in a therapeutically effective amount.

86.A pharmaceutical composition comprising:

a) a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino

acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 and mixture(s) thereof in a therapeutically effective amount, and;

b) a pharmaceutically acceptable carrier.

87. A pharmaceutical composition according to claim 84 further comprising an anticancer drug.

88. A pharmaceutical composition according to claim 83, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluorouracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

89. A pharmaceutical composition as in claim 83 further comprising a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of the composition.

90. A method for treating patients with a disease characterized by elevated levels of FSH comprising administering a pharmaceutical composition in an appropriate dosage form, the pharmaceutical composition comprising a polypeptide selected from the group consisting of rHuPSP94 as set forth SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4, the polypeptide as set forth in SEQ ID NO: 5, and the polypeptide as set forth in SEQ ID NO: 6, and a pharmaceutically acceptable carrier.

91. A method for treating patients with a disease characterized by elevated levels of FSH comprising administering a pharmaceutical composition in an appropriate dosage form, the pharmaceutical composition comprising a polypeptide analog

selected from the group consisting of a polypeptide analog of  
 at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID  
 NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a  
 polypeptide analog of at least two contiguous amino acids of  
 SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO:  
 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the  
 amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set  
 forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid  
 (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either  
 threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine  
 (Tyr) or phenylalanine (Phe), a polypeptide analog comprising  
 SEQ ID NO: 5 and having an addition of at least one amino acid  
 to its amino-terminus, wherein said polypeptide analog  
 comprising SEQ ID NO: 5 is selected from the group consisting of  
 SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising  
 SEQ ID NO: 5 and having an addition of at least one amino acid  
 to its carboxy-terminus, wherein said polypeptide analog  
 comprising SEQ ID NO: 5 is selected from the group consisting of  
 SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising  
 two to fifty units of SEQ ID NO: 5, a polypeptide analog  
 comprising two to ten units of SEQ ID NO: 5, a polypeptide  
 analog consisting of a sequence of from two to fourteen amino  
 acid units wherein the amino acid units are selected from the  
 group of amino acid units of SEQ ID NO: 5 consisting of  
 glutamic acid (Glu), tryptophan (Trp), glutamine (Gln),  
 threonine (Thr), aspartic acid (Asp), asparagine (Asn),  
 cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having  
 at least 90 % of its amino acid sequence identical to the amino  
 acid sequence set forth in SEQ ID NO: 5, a polypeptide analog  
 having at least 70 % of its amino acid sequence identical to  
 the amino acid sequence set forth in SEQ ID NO: 5, and a  
 polypeptide analog having at least 50 % of its amino acid  
 sequence identical to the amino acid sequence set forth in SEQ  
 ID NO: 5 and mixture(s) thereof, and a pharmaceutically  
 acceptable carrier, in a human dose.

92. The use of a polypeptide selected from the group consisting of  
 rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set  
 forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID  
 NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ  
 ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID  
 NO: 6 (polypeptide 76-94) and mixture(s) thereof, for treating  
 patients with a disease characterized by elevated levels of  
 FSH.

93. The use of a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X<sub>1</sub> W Q X<sub>2</sub> D X<sub>1</sub> C X<sub>1</sub> X<sub>2</sub> C X<sub>2</sub> C X<sub>3</sub> X<sub>1</sub> X<sub>2</sub> as set forth in SEQ ID NO: 89, wherein X<sub>1</sub> is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X<sub>2</sub> is either threonine (Thr) or serine (Ser), and X<sub>3</sub> is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 and mixture(s) thereof, for treating patients with a disease characterized by elevated levels of FSH.

94. The use of a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixtures thereof for the manufacture

of a medicament for the therapeutic treatment of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, benign prostate hyperplasia (BPH) or a disease characterized by elevated levels of FSH.

95. The use of a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence  $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$  as set forth in SEQ ID NO: 89, wherein  $X_1$  is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp),  $X_2$  is either threonine (Thr) or serine (Ser), and  $X_3$  is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 and mixture(s) thereof for the manufacture of a medicament for the therapeutic treatment of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion,

benign prostate hyperplasia (BPH) or a disease characterized by elevated levels of FSH.